WHAT IS CLAIMED IS:

1. An image processing device for processing an image using image data generated by an image generating device, and image generation record information that is associated with the image data and that includes operation information for the image generating device at the time that the image data is generated, the image processing device comprising:

a judging section configured to execute a backlight decision as to whether or not to execute backlight adjustment processing, based on both the image generation record information and the image data; and

an image quality adjuster that, when it is decided to execute the backlight adjustment processing, executes backlight adjustment processing to increase brightness value of at least some pixels in the image data.

2. An image processing device according to claim 1, wherein

when the image generation record information includes subject position information indicating a position of a subject in the image, the judging section uses the subject position information in executing the backlight decision.

3. An image processing device according to claim 2, wherein

the judging section analyses the image data with a weight distribution that has different magnitudes at the subject position and other positions, and execute the backlight decision according to the analysis result.

4. An image processing device according to claim 1, wherein

when the image generation record information includes flash information of a supplemental light source at the time of generation of the image data, the judging section decides based on the flash information whether illumination with light by the supplemental light source has been

performed at the time of generation of the image data, and uses a result of this decision in executing the backlight decision.

5. An image processing device according to claim 4, wherein

the judging section, based on the flash information, is able to identify one among available operation results of the supplemental light source at the time of generation of the image data, and

the judging section executes the backlight decision based on brightness values of the image data when the operation result is one of the following results:

(i) no supplemental light source is provided;

(ii) the supplemental light source is not fired; and

(iii) the supplemental light source is fired, and reflected light is detected.

6. An image processing device according to claim 5, wherein

the image generation record information further includes information relating to a distance between the subject of the image data and the image generating device at the time of generation of the image data, and

the judging section performs:

comparing the subject distance to a predetermined threshold value when the supplemental light source operation result is not any of the results (i), (ii) and (iii);

executing the backlight decision using the brightness values of the image data when a decision that the subject distance is equal to or greater than the predetermined threshold value; and

deciding not to execute the backlight adjustment processing when a decision that the subject distance is less than the predetermined threshold value.

7. An image processing device according to claim 1, wherein

when the image generation record information includes information relating to location of the subject of the image data, the judging section decides whether the subject location is an outdoor location, and executes the backlight decision depending on the decision result.

8. An image processing device according claim 7, wherein

when a decision that the subject location is an outdoor location is made, the judging section executes the backlight decision using brightness values of the image data.

9. An image processing device according to Claim 1, wherein

the judging section performs: (i) first judgment to decide whether or not the image generation record information negates necessity of the backlight adjustment processing, and (ii) second judgment, when the image generation record information does not negates the necessity of the backlight adjustment processing in the first judgment, to decide whether or not to execute the backlight adjustment processing based on a pixel value histogram of the image data.

10. An image processing device according to Claim 9, wherein

the judging section calculates a degree of similarity between the pixel value histogram and a predetermined reference histogram, and makes the second judgment according to the degree of similarity.

11. An image processing device according to Claim 10, wherein

the pixel value histogram and the reference histogram each have a simplified format in which a range of pixel values is divided into a plurality of segments, and a representative pixel frequency value is established for each segment; and

the degree of similarity represents similarity of the representative pixel frequency value of each segment between the pixel value histogram

and the reference histogram.

12. An image processing device according to claim 1, wherein

the image quality adjuster determines intensity of the backlight adjustment processing based on both the image generation record information and the image data.

13. An image processing device according to claim 12, wherein

when the image generation record information includes subject position information indicating a position of a subject in the image, the image quality adjuster analyses the image data with a weight distribution that has different magnitudes at the subject position and other positions, and determines intensity of the backlight adjustment processing according to the analysis result.

14. An image output device for outputting an image using image data generated by an image generating device, and image generation record information that is associated with the image data and that includes operation information for the image generating device at the time that the image data is generated, the image output device comprises:

a judging section configured to execute a backlight decision as to whether or not to execute backlight adjustment processing, based on both the image generation record information and the image data;

an image quality adjuster that, when it is decided to execute the backlight adjustment processing, executes backlight adjustment processing to increase brightness value of at least some pixels in the image data; and

an output section for outputting an image according to the image quality-adjusted image data.

15. A method of processing an image using image data generated by an image generating device, and image generation record

information that is associated with the image data and that includes operation information for the image generating device at the time that the image data is generated, the method comprising the steps of:

(a) executing a backlight decision as to whether or not to execute backlight adjustment processing, based on both the image generation record information and the image data; and

(b) when it is decided to execute the backlight adjustment processing, executing backlight adjustment processing to increase brightness value of at least some pixels in the image data.

16. A method according to claim 15, wherein

when the image generation record information includes subject position information indicating a position of a subject in the image, the backlight decision is made using the subject position information.

17. A method according to claim 16, wherein

the step (a) includes analyzing the image data with a weight distribution that has different magnitudes at the subject position and other positions, and executing the backlight decision according to the analysis result.

18. A method according to claim 15, wherein

when the image generation record information includes flash information of a supplemental light source at the time of generation of the image data, the step (a) includes deciding based on the flash information whether illumination with light by the supplemental light source has been performed at the time of generation of the image data, and executing the backlight decision using a result of this decision.

19. A method according to claim 18, wherein

the step (a) includes, based on the flash information, identifying

one among available operation results of the supplemental light source at the time of generation of the image data, and

the step (a) includes executing the backlight decision based on brightness values of the image data when the operation result is one of the following results:

(i) no supplemental light source is provided;

(ii) the supplemental light source is not fired; and

(iii) the supplemental light source is fired, and reflected light is detected.

20. A method according to claim 19, wherein

the image generation record information further includes information relating to a distance between the subject of the image data and the image generating device at the time of generation of the image data, and

the step (a) includes:

comparing the subject distance to a predetermined threshold value when the supplemental light source operation result is not any of the results (i), (ii) and (iii);

executing the backlight decision using the brightness values of the image data when a decision that the subject distance is equal to or greater than the predetermined threshold value; and

deciding not to execute the backlight adjustment processing when a decision that the subject distance is less than the predetermined threshold value.

21. A method according to claim 15, wherein

when the image generation record information includes information relating to location of the subject of the image data, the step (a) includes deciding whether the subject location is an outdoor location, and executing the backlight decision depending on the decision result.

22. A method according claim 21, wherein

when a decision that the subject location is an outdoor location is made, the step (a) includes executing the backlight decision using brightness values of the image data.

23. A method according to Claim 15, wherein the step (a) includes:

(i) performing first judgment to decide whether or not the image generation record information negates necessity of the backlight adjustment processing; and

(ii) performing second judgment, when the image generation record information does not negates the necessity of the backlight adjustment processing in the first judgment, to decide whether or not to execute the backlight adjustment processing based on a pixel value histogram of the image data.

24. A method according to Claim 23, wherein

the step (a) further includes calculating a degree of similarity between the pixel value histogram and a predetermined reference histogram, and making the second judgment according to the degree of similarity.

25. A method according to Claim 24, wherein

the pixel value histogram and the reference histogram each have a simplified format in which a range of pixel values is divided into a plurality of segments, and a representative pixel frequency value is established for each segment; and

the degree of similarity represents similarity of the representative pixel frequency value of each segment between the pixel value histogram and the reference histogram.

26. A method according to claim 15, wherein

the step (a) includes determining intensity of the backlight adjustment processing based on both the image generation record information and the image data.

27. A method according to claim 26, wherein

when the image generation record information includes subject position information indicating a position of a subject in the image, the step (b) includes analyzing the image data with a weight distribution that has different magnitudes at the subject position and other positions, and determining intensity of the backlight adjustment processing according to the analysis result.

28. A method of outputting an image using image data generated by an image generating device, and image generation record information that is associated with the image data and that includes operation information for the image generating device at the time that the image data is generated, the method comprising the steps of:

(a) executing a backlight decision as to whether or not to execute backlight adjustment processing, based on both the image generation record information and the image data;

(b) when it is decided to execute the backlight adjustment processing, executing backlight adjustment processing to increase brightness value of at least some pixels in the image data; and

(c) outputting an image according to the image quality-adjusted image data.

29. A computer program product comprising:

a computer readable medium; and

a computer program stored on the computer readable medium, the computer program including

a first program causing a computer to execute a backlight decision

as to whether or not to execute backlight adjustment processing, based on both the image generation record information and the image data; and

a second program, when it is decided to execute the backlight adjustment processing, causing the computer to execute backlight adjustment processing to increase brightness value of at least some pixels in the image data.